A DESCRIPTION OF THE NESTS AND EGGS OF THE COMMON BIRDS OCCURRING IN THE PLAINS OF THE UNITED PROVINCES.

BY

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(With a plate.)

Corvus macrorhynchus (4) Local name Anglo-Indian name The Jungle-Crow.

.. Kala-Kaowa.

.. Raven.

This bird breeds commonly throughout the Province; the most favoured months being February and March. In the eastern districts (those lying east of Benares) domestic operations are commenced as a rule in January, almost all the nests having eggs between the middle and end of February. I have taken slightly incubated eggs in the first week of March, and have found young ones on several occasions by the middle of March. By the end of March and beginning of April mostly all the nests contain young, and so far as my experience goes, it has been rather the exception than the rule to find fresh eggs after these dates. In the Western districts (those lying west of Benares) the period of nidification seems to be slightly delayed, but I would not go so far as to say that this constitutes a general rule. In Allahabad, Fatehpur, Cawnpore, and Lucknow, I have taken eggs in April, mostly all in various stages of incubation. But then I have also taken eggs in the same stations in March, so that the inference to be drawn is not conclusive. However, the Eastern districts not being subjected to the winter cold of the Western districts, the period of nidification in the latter would probably have a tendency to be longer delayed.

The Jungle-Crow does not seem to favour any particular tree when choosing a site for its nursery, nor is any great importance attached to height. The topmost branches of a gigantic "Pipal" are as acceptable as the low, lean branches of some thorny acacia, or the leafy comfort of the "Mangoe". Being by nature an outrageous bully, scant attention is paid to any effort at concealment. In fact, in numerous cases it would seem as though every effort were made to render the nest as visible as possible. Both birds assist in building the nest, incubating the eggs, and rearing the young, but their powers of discrimination are as feeble as the parental instinct is strong; for I know of one particular pair which nursed a golf-ball with loving care for weeks after their eggs had been removed.

The nest externally is a crude structure of coarse sticks which serve the purpose of a substantial foundation; but internally the egg cavity is a marvel of construction for such a clumsy bird. Beautifully cup-shaped, between 6 and 8 inches in diameter, and 4 to 5 inches in depth, and lined with fine grass-roots, and vegetable fibres, over which is placed a soft cushion of horse-hair carefully fashioned to the internal shape of the nest. From below all that is generally visible of the sitting bird are the tips of the bill and tail.

I have never found more than three eggs in a nest, which I consider is the maximum number laid. So far as coloration is concerned the variation is not considerable, except that the ground-colour in some specimens may be of a richer or lighter shade than in others, and the markings in some much darker, and more irregular than in others. The ground-colour of a normal specimen is what might be described as a greenish-blue with little or no gloss, more or less blotched and streaked with different shades of yellowish-brown. In shape they are typically long ovals, distinctly pointed towards one end, but in size they vary considerably, even in regard to the eggs of one clutch. A normal egg would measure about 1.75 by 1.2 inch.

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Corvus splendens (7)		• •	The Indian House-Crow.
Local name	••	••	Desi-Kaowa.
Anglo-Indian name			Common Crow.

This species breeds, if anything, even more commonly than *C. macrorhynchus;* but at a much later period in the Eastern and Western districts alike. June, July, and August seem to be the most favoured months, though almost all the nests I have examined in August have contained young. Domestic operations, as a rule, are commenced in May, but I have no notes of ever having taken eggs in that month. A few stragglers with other interests in life do not commence building till July, but the longer they delay the more they seem to be victimised by the Koels, which commence their depredations with the advent of the rains. I have examined hundreds of nests, and have come to the conclusion that those crows which nidificate early, in the beginning of June, are comparatively free from the attentions of these parasites, and it is only the stragglers who are burdened with the work of foster parents.

This species, unlike the last, seems to prefer nesting on trees in the immediate vicinity of human dwellings; while I have noticed several instances of more than one nest on the same tree; a domestic liberty which *C. macrorhynchus* would not tolerate. The nests, though smaller, are similar in structure to those already described, except that the egg cavity is usually not constructed with such elaborate care, nor is so much discrimination exercised in the choice of materials; course rags and wool often being incorporated.

The normal number of eggs laid by this bird appears to be four, but I have taken six on more than one occasion. Departures from the normal, both as regards size and coloration, are more pronounced in this species than in the last. As a whole they are more glossy, and of a brighter blue, and the markings, though not as a rule so numerous, are in many cases much darker in colour, and more defined. Two eggs taken by me some years ago caused much speculation at the time as to their correct identification, but I was subsequently convinced as to their belonging to this species. The nest was low down on a "Nim" tree which I found to contain a single egg of pale pure blue, without spot or blemish of any kind. There was no sign of any bird, so after watching the nest for a time I departed, and the following morning discovered a second egg of exactly the same type. Still no bird in sight, but as village urchins had seen the nest as well, I considered it advisable to remove the eggs; and though the nest was obviously a crow's, I was at a loss to account for the abnormal colouring of the eggs. Subsequent visits to the nest were to no purpose, but about ten days later I was rewarded for my pains by seeing a crow in occupation. She must have been on the point of laying an egg for she hopped out at my approach and, sitting on an adjacent branch, laid her egg, which dropped to the ground and broke. I examined the shells carefully and found them to be of the same spotless blue; thus eliminating all doubts as to the correct identity of the other two. To find one such egg in a clutch would not be extraordinary, but to have all going the same way certainly provides food for thought.

In shape the eggs vary considerably; pyriform, elongated, and globular varieties being common. Typically however, they may be said to be broad ovals, a good deal pointed towards one end. The size of a normal specimen would be about 1.45 by 1.05 inch.

Dendrocitta rufa (16)		•••	The Indian Tree-Pie.
Local name		•••	Mootri.
Anglo-Indian name	••		Long-tailed Jay; Oglevic.

This bird is common throughout the Province, is resident, and breeds ordinarily from April to July; though I have taken eggs in the Lucknow district as late as August. When commencing domestic operations the birds are invariably seen together, and are very noisy; and if building a nest one has only to follow them about in order to locate it. One tree seems to suit their purpose as well as another, but a certain amount of attention is paid to concealment, with the result that trees with large leaves, and heavy foliage are specially favoured.

The nests are rarely lower than 15 feet from the ground, and are almost invariably placed in the fork of some high branch. As a rule they are of course twigs roughly put together, more or less circular in shape, the external measurement being about 7 inches across, and in a carefully constructed nest the egg cavity would be about 5 inches in diameter, and from 3 to 4 inches in depth. As a rule however, the egg cavity is shallow, and is lined with various kinds of grass-roots, and vegetable fibres.

The eggs are of two distinct types, for which I can offer no explanation, apart from the suggestion that this peculiarity mightbe influenced by the age of the bird. The period of nidification does not seem to beer any significance whatsoever, for after taking careful note of the matter I have found that throughout the period of nidification the two types occur with comparative regularity; though so far as my experience goes, I have found the salmon-coloured type to be more numerous; a fact upon which I have based my suggestion of age. On the other hand I have found the two types as often in exposed and badly constructed nests as in concealed and well constructed ones, so that the theory of protective coloration would seem not to apply.

Both birds share in building the nest, incubating the eggs, and rearing the young; and are very intolerant of the presence of other species on or near their family tree; another trait which renders the nest easy of location.

In shape the eggs are typically elongated ovals, a good deal pointed towards one end, but broad ovals and globular specimens are common. The bread ovals particularly so. The variation as regards character and colouring is pretty wide but the eggs of the one clutch usually bear a close resemblence to each other. Of the two prominent types the ground-colour of one varies from a pale greenish-white to pale salmon, with markings of dark salmon and shades of purple more numerous towards the large end. The ground-colour of the other is greyish or greenish-white, with markings which vary between dark grey and light brown shades, sometimes profusely but usually thinly, scattered over the eggs more so towards the large end. Between these two types intermediate varieties varying in tone and character occur not infrequently; some specimens greatly resembling those of *Lanius lahtora*. The size of a normal specimen would be about 1.17 by 0.86 inch.

Argya earlii (104)	• •	 The Striated Babbler.
Local name		 'Chilchil.
Anglo-Indian name		Unknown

This species can hardly be described as being common in the Province. So far as my experience goes I have only seen it on a few occasions when touring in November over some of the grass-covered plateaux of the Vindhyas, at a point where they pass through the southern portion of the Mirzapur district, comprising part of the Benares division. Whenever I came across them they were in small parties numbering from six to a dozen. But whether they remain there to breed, or are purely winter visitors is what I was unable to ascertain. The natives of those parts are decidedly backward and unobservant, and were not able to supply me with any reliable information. In fact I very much doubt whether they were capable of differentiating between this species and *Argya caudata* which was found to be extremely common. Consequently any proferred information was not to be relied on.

According to Hume, Colonel Marshall found this species breeding in the Saharanpur district of the U. P. during the month of March and April, so that it would appear to keep to the sub-mountain tracts during the breeding season, and migrate further towards the plains during the winter. The nest is described as a deep cup-shaped structure, rather neatly made of grass without lining, and woven in with the stems if in a clump of grass, or firmly fixed in a fork if in a bush or low tree. The intrior diameter is about 3 inches, and the depth nearly 2 inches.

I have never taken the eggs of this bird, but in shape they are described as ovals, rather thinner at one end, and of a clear, full, verditer-blue colour, measuring about 0.88 by 0.7 inch.

Argya caudata (105)		• •	The Common Babbler.
Local name	• •	••	Chilchil.
Anglo-Indian name	••	• •	Bush-Sparrow.

This bird is very common throughout the Western districts, and particularly in the jungle covered tracts of the Jhansi division, and southern portions of the Allahabad and Mirzapur districts. In the Eastern districts they occur, but never in any large numbers. Mr. Douglas Dewar in an article to the Pioneer some time back stated, I think, that this bird did not occur in the Ghazipur district, and he doubted if it occurred at all in the Benarcs division. So far as my observations go, I have seen small parties of this species in May and June on Baipur Island, not far from the civil station of Ghazipur, and in June found two of their nests; while in the hilly tracts of the Mirzapur district(part of the Benares division) it is far and away the commonest bird to be seen; occurring in small parties in almost every little patch of scrub. Indeed one has only to get down at Chunar railway station (E.I.R.) to find them comparatively common in the adjoining scrub jungle.

The nest is typical, and when once seen can never be mistaken for any other. As a rule the most noticeable points are, symmetery of form, cleanliness, the extraordinary thickness of the walls, and height from the ground; while the egg cavity is as perfect a cup as can be imagined. They are constructed throughout of grass-roots, and vegetable fibres, usually unlined, but sometimes lined with fine grass stems and even horse hair; and are placed in low thorn bushes, the more thorny the better, and only occasionally in clumps of course grass. Externally a nest would measure about 7 inches across, and the egg cavity from 2 to 3 inches in diameter, and from $l_{\frac{1}{2}}$ to $2\frac{1}{2}$ inches in depth.

The period of nidification is much prolonged, March to September, some stragglers even extending domestic operations into October and November. The bulk seem to have eggs in March, April, and May, the young ones being fully fledged by the end of June. The popular idea seems to be that there are two, and even three broods a year, but I have not been able to accumulate any evidence to justify this theory; in fact I am inclined to believe that there is not much ground for arriving at this conclusion.

The eggs in shape are typically moderately elongated ovals, slightly compressed towards one end, but globular, and pyriform varieties are not uncommon. The shells are usually brilliantly glosy and of a delicate, spotless, pale blue colour, a shade which varies very little indeed. A normal egg would measure about 0.82 by 0.64 inch.

Argya malcolmi (107)	• •	• •	The large Grey Babbler.
Local name	• •	• •	Gangai, Sat-bhai.
Anglo-Indian name	• •	••	Long-tailed Magpie.

This bird is comparatively common, and breeds throughout the Province in suitable localities. Here again the period of nidification is much prolonged, from about March to October, though nests are often found in December and January. The theory of two and three broods in the year seems to be applied generally to this species as well, but it would be difficult to substantiate this with reliable evidence. In the next species I have propounded a theory, or rather made a suggestion, which might be worth the consideration of any one sufficiently interested.

Like *Crateropus canorus*, this species associate together in small parties even when breeding, a departure from the general custom obtaining amongst gregarious birds in regard to nidification, but where the former frequent gardens and groves, the present species are found more frequently in open spaces quite rc-



Journ., Bombay Nat. Hist. Soc.

Nest of the Rufous-bellied Babbler.

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moved from human habitations. Nests are commonly found in thin scrub jungle, and especially on babool trees scattered about open plains. In fact I have never taken nests which were not on babool trees or thorny bushes. They are never placed at any great height from the ground, and are constructed almost entirely of dry grass-roots, and vegetable fibres ; in numerous instances the outer layers being composed of thorny twigs, like the nests of *Lanius lahtora*. The egg cavity, which is more or less cup-shaped, is lined with close-woven roots of "khus-khus" grass, and similar vegetable fibres. Externally the nest would measure about 6 inches in diameter, and the egg cavity from 3 to 4 inches in diameter, and to be compared for compactness with that of *A. caudata*.

The normal number of eggs laid appears to be four. In shape they are typically rather broad ovals, somewhat pointed towards one end, but more or less clongated and spherical varieties occur sometimes. They are of a bright greenishblue colour throughout, darker in some specimens than in others, with a decided gloss. A normal specimen would measure about 0.99 by 0.77 inch.

Crateropus canorus (10) .. The Jungle Babbler.

Local pames Sat-bhai.

Anglo-Indian name The Common Magpie.

I should say that this bird without exception is the commonest in almost every district of the Province. Every compound and garden is frequented by them in large or small parties. In Ghazipur they are so numerous and aggressive, inflicting considerable damage in both flower and vegetable gardens, that they might very well be classified as vermin. The period of nidification is somewhat prolonged, from March to August, though I have frequently found nests in September.

The associating together of small parties even when nesting is specially noticeable in this species; but in all my experience I have never met with more than one nest at a time in the vicinity frequented by any one party. The young when fledged immediately swell the numbers of that party, but what seems most extraordinary is that it is not till the parents of one brood are busy feeding the fledglings that another pair take it into their heads to commence building. The birds certainly do not assist in feeding the brood from another nest, so that their parential instinct would seem to be stirred only by the sight of young birds in their midst. I have noticed this peculiarity in several instances, and if it constitutes a general practice, it would explain the long period of nidification, and disprove the existing idea of two and three broods a year.

The nest resembles very much that of A. malcolmi but is generally not so substantially constructed, nor as neatly put together; and is more often than not to be found in groves and gardens adjoining human dwellings. Any small tree or scrub serves the purpose equally well, but as the nest is never placed at any great distance from the ground, a considerable amount of attention is paid to concealment. Bushes and shrubbery are specially favoured.

With regard to the division of labour the greater portion seems to be borne by the hen bird; but the cock is invariably in attendance, if for no other purpose than to cheer her with his presence, and to assist in protecting the nursery against attack.

The normal number of eggs laid appears to be four, and from a large series it would be very difficult to separate them from the eggs of A. malcolmi, except that taken as a whole they are somewhat smaller and of a deeper blue; a normal specimen measuring about 0.82 by 0.64 inch.

Dumetia hyperythra	(135)	The Rufous-bellied Babbler	
Local name	••	Unknown.	
Anglo-Indian names	••	Titmouse.	

This bird seems to have a curious distribution in as much as it is comparatively common in some districts, and rare in others. Its skulking nature does not tend to bring it into prominence, so that one is apt to pass it by. I draw my conclusions, however, from the number of nests I have seen and taken.

The only districts in which I have taken eggs are Lucknow and the southern portions of Cawnpore and Mirzapur, though I have seen the birds on several occasions at Rae-Bareli, Fatehpur and Allahabad. I have never met with them in Benares and Ghazipur. The period of nidification is comparatively short, June to August, though in the Lucknow district I found the eggs most common in July, after the rains had set in well. One had only to walk along certain railway embankments to find the nests in the grass.

The nest is more or less globular, often egg-shaped, and the materials used in construction vary in regard to the position of the nest. In fact it may be regarded as a general rule that it is composed of material obtainable in the immediate vicinity. When placed in bamboo clumps it is made of bamboo leaves lined internally with fine grass roots and vegetable fibre, and if placed in grass it is almost invariably made of broad grass-blades lined with fine grasses, hair, and vegetable down.

The nest varies from 4 to 5 inches in diameter, and as a rule is well concealed, in some cases practically touching the ground, so that one has to search pretty carefully to find it. The usual complement of eggs appears to be four, though I have often taken only three. In shape they are short, broad ovals, very slightly compressed, and as a rule are characterised by irregular, smudgy, confluent zones, at the large end, of shades varying between red, and brownish-purple. The ground colour is white, pinkish-white, and bluish-white ; and the small end faintly spoited and speckled with reddish-brown. A normal specimen would measure about 0.67 by 0.53 inch.

Pyetorhis sinensis (139)				The Yellow-eyed Babbler.
Local names		• •	••	Bara-podna ; Bara-piddi.
Anglo-Indian name	• •			Reed-Warbler.

This bird is to be found in most districts in the province, though I would not regard it as common. It seems to occur more abundantly in grass lands, and especially in the long, coarse grass along the banks of rivers and streams. I have noticed the birds on several oceasions while out pigsticking, but I cannot claim to have taken many of their nests, and those only in the Lucknow district.

The period of nidification appears to be from the end of June to August and September, most of the nests being started after the rains have set in, and the grass is green and robust. The birds are frequently met with in gardens, while nests have been found in bushes and shrubbery. But the few nests I have seen have always been built in thick coarse grass, suspended between two or three substantial reeds, usually in the densest part.

The nest is cone-shaped, the apex being at the bottom. It is strong, solid, and compact, being composed of long strips of strong grass and vegetable fibres, tightly wound round and kept in place with cobwebs and gossamer-threads. At the top of this structure is the egg-cavity which is beautifully cup-shaped, measuring about $2\frac{1}{2}$ inches in diameter, and 2 inches in depth, and lined with fine twigs and vegetable fibre closely intervoven.

The full complement of eggs appears to be five, and they are usually very beautiful to look at. Some specimens are almost bright blood-red throughout with white, or pinkish-white, ground colouring showing through here and there; while in others the ground colouring is more conspicuous and is covered over with irregular spots, blotches, and elumsy daubs of shades ranging between brick-dust red and pale'purple, intermingled sometimes with hieroglyphic streaks. In size and shape they vary a good deal, but are typically very broad ovals, obtuse at the small end; and a normal specimen would measure about 0.73 by 0.59".

(To be continued.)